

I claim:

1. In a common cylinder lock, having a plurality of standard pin assemblies, each of said plurality of standard pin assemblies being disposed in a pin chamber, wherein each crosses a shear line, and is linearly displaceable along said pin chamber, each standard pin assembly comprising a tumbler pin, a driver pin and a
5 biasing spring, arranged so as to define a locked cylinder position, in which said driver pin extends beyond the shear line, preventing rotation of the cylinder plug, said tumbler pin being positioned opposite said driver pin, within said pin chamber,

10 at least one pin assembly, modified to prevent impact-driven manipulation of said locks, said at least one modified pin assembly comprising:

a modified pin set comprising a tumbler and driver, being adapted so as to alter the magnitude of its response to an impact-driven blow applied to said tumbler pin, relative to the magnitude of the response of the standard pin
15 assemblies contained in said common cylinder lock,

such that when said tumbler pin is linearly displaced in response to an impact-driven blow of a given intensity, a portion of said impact-driven blow intensity is transmitted to said driver pin, causing it to be linearly displaced, as well,

20 and while said standard pin assemblies clear the shear line, said driver pin of said modified pin set continues to block the shear line,

consequently preventing unauthorized manipulation of said cylinder lock.

2. The modified pin assembly of claim 1 wherein, although an impact-driven blow is of sufficient magnitude in order to displace said driver pin of said
25 modified pin set so as to clear the shear line and allow manipulation of said lock,

at least one standard pin assembly tumbler pin is simultaneously displaced so as to cross the shear line, causing continued blockage of the shear line.

3. The modified pin assembly of claim 1 wherein said modified pin assembly, containing a tumbler pin and a driver pin, is adapted so as to alter linear displacement thereof, by forming a recession in one of said pins contained in said pin assembly, and an engagement means, in the other of said pins, for engaging said recession, such that when an impact-driven blow of a given intensity is applied so as to linearly displace said tumbler and driver pins, said pin engagement means engages said pin recession, strongly binding the tumbler and driver pins together.

10 4. The modified pin assembly of claim 1 wherein said modified pin assembly is adapted so as to alter linear displacement thereof, by fabricating at least one of said pins, contained in said pin assembly, from a material having a significantly higher specific gravity than said standard pin assembly.

15 5. The modified pin assembly of claim 1 wherein said modified pin assembly is adapted so as to alter linear displacement thereof, by fabricating at least one of said pins, contained in said pin assembly, from a material having a significantly lower specific gravity than said standard pin assembly.

20 6. The modified pin assembly of claim 1 wherein said modified pin assembly is adapted so as to alter linear displacement thereof, by inserting a pad of energy absorbing material, at the point of contact between said driver pin and said tumbler pin.

7. The modified pin assembly of claim 1 wherein said modified pin assembly is adapted so as to alter linear displacement thereof, by providing it with magnetic properties that cause binding of said modified pin set.

8. The modified pin assembly of claim 1 wherein said modified pin assembly is adapted so as to alter linear displacement thereof, by modifying the strength properties of the biasing spring.
9. The modified pin assembly of claim 3 wherein means are provided to enable
5 release of said engaged tumbler and driver pins.
10. The modified pin assembly of claim 9 wherein said unauthorized manipulation is represented by said engaged tumbler and driver pins and said release of said engaged tumbler and driver pins indicates an attempted unauthorized manipulation.
- 10 11. A method for preventing unauthorized manipulation of common cylinder locks, wherein said common cylinder locks are comprised of a plurality of standard pin assemblies, each of said plurality of standard pin assemblies being disposed in a pin chamber, wherein each crosses a shear line, and is linearly displaceable along said pin chamber, each standard pin assembly comprising a
15 tumbler pin, a driver pin and a biasing spring, arranged so as to define a locked cylinder position, in which said driver pin extends beyond the shear line, preventing rotation of the cylinder plug, said tumbler pin being positioned opposite said driver pin, within said pin chamber,
- said method comprising:
- 20 providing at least one pin assembly, modified to prevent impact-driven manipulation of said locks, said at least one modified pin assembly comprising:
- a modified pin set comprising a tumbler and driver, being adapted so as to alter the magnitude of its response to an impact-driven blow applied to said
25 tumbler pin, relative to the magnitude of the response of the standard pin assemblies contained in said common cylinder lock,

such that when said tumbler pin is linearly displaced in response to an impact-driven blow of a given intensity, a portion of said impact-driven blow intensity is transmitted to said driver pin, causing it to be linearly displaced, as well,

5 and while said standard pin assemblies clear the shear line, said driver pin of said modified pin set continues to block the shear line,

consequently, preventing unauthorized manipulation of said cylinder lock.

12. The method of claim 11 wherein, although an impact-driven blow is of sufficient magnitude in order to displace said driver pin of said modified pin set so as to clear the shear line and allow manipulation of said lock, at least
10 one standard pin assembly tumbler pin is simultaneously displaced so as to cross the shear line, causing continued blockage of the shear line.

13. The method of claim 11 wherein said modified pin assembly, containing a tumbler pin and a driver pin, is adapted so as to alter linear displacement thereof, by forming a recession in one of said pins contained in
15 said pin assembly, and an engagement means, in the other of said pins, for engaging said recession, such that when an impact-driven blow of a given intensity is applied so as to linearly displace said tumbler and driver pins, said pin engagement means engages said pin recession, strongly binding the
20 tumbler and driver pins together.

14. The method of claim 11 wherein said modified pin assembly is adapted so as to alter linear displacement thereof, by fabricating at least one of said pins, contained in said pin assembly, from a material having a significantly higher specific gravity than said standard pin assembly.

25 15. The method of claim 11 wherein said modified pin assembly is adapted so as to alter linear displacement thereof, by fabricating at least one of said

pins, contained in said pin assembly, from a material having a significantly lower specific gravity than said standard pin assembly.

16. The method of claim 11 wherein said modified pin assembly is adapted so as to alter linear displacement thereof, by inserting a pad of energy absorbing material, at the point of contact between said driver pin and said tumbler pin.

17. The method of claim 11 wherein said modified pin assembly is adapted so as to alter linear displacement thereof, by providing it with magnetic properties that cause binding of said modified pin set.

18. The method of claim 11 wherein said modified pin assembly is adapted so as to alter linear displacement thereof, by modifying the strength properties of the biasing spring.

19. The method of claim 13 wherein means are provided to enable release of said engaged tumbler and driver pins.

20. The method of claim 19 wherein said unauthorized manipulation is represented by said engaged tumbler and driver pins and said release of said engaged tumbler and driver pins indicates an attempted unauthorized manipulation.